Office of Building Safety
Residential Stairs

R311.7 Width. Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4 1/2 inches on either side of the stairway and the clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31 1/2 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides.

R311.7.2 Headroom. The headroom in stairways shall not be less than 6 feet 8 inches measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.

Exception: Where the nosing of treads at the side of a flight extend under the edge of a floor opening through which the stair passes, the floor opening shall be allowed to project horizontally into the required headroom not more than 4 3/4 inches.

R311.7.4.1 Riser Height. The maximum riser height shall be 8 1/4 inches. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch.

R311.7.4.2 Tread Depth. The minimum tread depth shall be 9 inches. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread’s leading edge. The greatest tread depth shall not exceed the smallest by more than 3/8 inch. *See section R311.7.4.2 for winder treads.*
R311.7.5.3 **Nosing.** The radius of curvature at the nosing shall be no greater than 9/16 inch. A nosing projection not less than ¾ inch and not more than 1¼ inches, shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed ½ inch. **Risers shall be vertical or sloped under the tread above from the underside of the nosing above at an angle not more than 30 degrees from the vertical.** Open risers are permitted, provided that the opening between treads does not permit the passage of a 4 inch diameter sphere.

**Exceptions:**
1. A nosing is not required where the tread depth is a minimum of 11 inches.
2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches or less.